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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/656,969	09/07/2000	Dr. Yiming Zhou	450110-02767	2147

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EXAMINER	
ZHONG, CHAD	
ART UNIT	**PAPER NUMBER**
2152	

DATE MAILED: 03/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/656,969	ZHOU, DR. YIMING	
	Examiner	Art Unit	
	Chad Zhong	2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 June 2005* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

FINAL ACTION

1. Applicant's arguments, see pages 8-16 of applicant's remarks, filed 12/19/2005, with respect to the rejection(s) of claim(s) 1-17 under 35 USC 102(e) and 35 USC 103(a) have been fully considered and are not persuasive. Therefore, the rejection has been maintained, this action is final. Claims 1-17 are presented for examination; claims 18-19 are cancelled.

Claim Rejections - 35 USC § 112, second paragraph

2. Claims 1, 4, 6-8, and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. The following terms are not clearly understood:

i. As per claim 1, line 9, claim 14, line 4 it is unclear whether 'transmit service requests' means resource request, i.e. 'request for a piece of software, importing or exporting software module' or 'execution of tasks on behalf of a requesting originator', both of the above limitations are supported by Applicant's specification, specifically, the former is located on pg 5, lines 1-2, and the latter on pg 5, lines 3-10, pg 7, lines 11-12. For the purpose of examination, the examiner will consider 'execution of tasks on behalf of a requesting originator'.

ii. As per claim 1, line 11, claim 14, line 6 it is unclear whether 'perform a task for said station' means 'performing the task of importing or exporting software module' or 'execution of tasks on behalf of a requesting originator', both of the above limitations are supported by Applicant's specification, specifically, the former is located on pg 5, lines 1-2, and the latter on pg 5, lines 3-10, pg 7, lines 11-12. For the purpose of examination, the examiner will consider 'execution of tasks on behalf of a requesting originator'.

iii. As per claim 6, 7, it is unclear how importing and exporting software modules fit in with executing tasks on behalf of another network station. As stated above in item ii, the examiner will consider 'execution of tasks on behalf of a requesting originator' only.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-4, 6-7, and 9-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hild et al. (hereinafter Hild), US 6,532,368, in view of Segarra et al. (hereinafter Segarra), US 4,466,063.

5. As per claim 1, Hild teaches a station for a network apparatus, said network apparatus comprising said station and a plurality of other stations (Fig 1, wherein Fig 1 is an example of a particular network station; Col. 4, lines 59-61), all interconnected in a network by a communication link (Col. 4, lines 49-52), said station comprising:

a network connection (Fig 2A, item 34, 35);

a self assessment module operable to determine a current status of said station, wherein said current status is a measure of available hardware resources of said station (Col. 10, lines 33-45, lines 57-63, Col. 11, lines 15-22, Col. 8, lines 47-48, Col. 12, lines 14-20, local service list is kept and checked as in Fig 2D; hardware resources comprises of at least the amount of battery available (Col. 9, lines 13-20), and availability information on actual hardware components of the network device, represented by parameters/identifiers (Col. 7, lines 50-67)), and

wherein said current status includes a determination of dynamic status for said station based on current usage of said hardware resources of said station (Col. 9, lines 13-20; Col. 7, lines 50-67, Col. 8, lines 30-40, since network devices performs a self evaluation prior to broadcasting/advertising its own services for a finite period of time, this implicitly signifies self monitoring and reservation of hardware resources and for a finite period of time);

a trust list that includes a station identifier for each other station of said plurality of other stations which is designated as trusted to perform tasks for said station (Col. 8, lines 33-39; Fig. 2D, remote service list);

However, Hild does not explicitly teach:

a broadcast unit operable to transmit service requests to said network connection and via said network, said service requests being directed to said each other station identified in said trust list and constituting a request to said each other station to perform a task for said station; and

an answer unit operable to receive service requests via network through said network connection and, in response thereto, to transmit via said network through said network connection an acceptance or refusal message in respect of said service request, said acceptance or refusal being decided having regard to said current status of said station, as determined by said self assessment module.

In a similar system, Segarra teaches a originator broadcasting of service requests to plurality of network nodes (Segarra, Col. 24, lines 24-30), the requests being a service request to be performed on behalf of the originating node by other nodes on the network (Segarra, Col. 28, lines 18-35), thereafter, nodes receiving the requests performs self assessment on their current respective resources, and returning a broadcast reply message back to the originator, indicating the current availability of the resources (Col. 28, lines 24-52).

It would have been obvious to the person of ordinary skill in the art at the time of the invention to combine teachings of Hild and Segarra because requesting a remote device to perform a task on behalf of the originating node and having the ability to determine whether the resource is available on said remote device as taught by Segarra would enhance the capability of Hild by allowing for remote stations to perform tasks on behalf of the originator on a resource limited basis.

6. As per claim 2, Hild – Segarra disclose the invention substantially as rejected in claim 1 above, including said self assessment module is operable to determine a static status for said station based on

said hardware resources of said station (Hild, Col. 10, lines 35-45, lines 58-63; Col. 11, lines 13-21, the broadcasting is directly proportional to the amount of resources available on the current station; Fig 2B, wherein service 'B1' is static and expiry time 'm' is dynamic).

7. As per claim 3, Hild – Segarra disclose the invention substantially as rejected in claim 1 above, including a system security module operable to handle encryption between said station and each other trusted station (Hild, Col. 7, line 67 – Col. 8, line 2).

8. As per claim 4, Hild – Segarra disclose the invention substantially as rejected in claim 1 above, including a task execution, monitoring and reporting module operable to broadcast to said network progress updates on tasks accepted by and being performed in said station on behalf of an other station (Segarra Col. 28, lines 10-45; Col. 29, lines 5-10; Col. 28, lines 8-31; Col. 28, lines 44-46).

9. As per claim 5, Hild – Segarra disclose the invention substantially as rejected in claim 1 above, including a task scheduler module arranged to monitor all tasks being performed in said station, including tasks initiated by said station for said station and tasks being performed in response to receipt of a service request from one of said other stations (Segarra, Col. 28, lines 42-51; Col. 29, lines 5-15; Col. 30, lines 53-65).

10. As per claim 6, Hild – Segarra disclose the invention substantially as rejected in claim 1 above, including a service requirement analysis module and a software resource repository in which a plurality of software modules are stored said service requirement analysis module being operable to maintain said software resource repository by importing and exporting software modules to and from other stations having regard to demand in said station for such software modules (Segarra, Col. 28, lines 35-42, wherein the modules are software/system resources; Col. 28, lines 23-45).

11. As per claim 7, Hild – Segarra disclose the invention substantially as rejected in claim 6 above, including wherein said station is further operable to broadcast messages to said network offering software modules held in said software resource repository to said or each other trusted station (Hild, Col. 8, lines 35-45).

12. As per claim 9, Hild – Segarra disclose the invention substantially as rejected in claim 1 above, including a task failure management module, operable to transmit to said network a failure message in response to failure of said station successfully to complete a task being performed for one of said other stations (Segarra, Col. 2, lines 39-45; Col. 4, lines 43-47; Col. 30, lines 53-64).

13. As per claim 10, Hild – Segarra disclose the invention substantially as rejected in claim 9 above, including said task failure management module is further operable to monitor for failure messages transmitted by one of its trusted stations and, in response thereto, to handle said failure message as a service request message for said failed task (Segarra, Col. 31, line 1 – Col. 32, line 2).

14. As per claim 11, Hild – Segarra disclose the invention substantially as rejected in claim 1 above, including a network interconnected by a communication link (Hild, Fig 2A, item 34, 35).

15. As per claim 12, Hild – Segarra disclose the invention substantially as rejected in claim 11 above, including wherein there is no central server for said network (Hild, Col. 4, lines 45-60).

16. As per claim 13, Hild – Segarra disclose the invention substantially as rejected in claim 12 above, including said network operates to a protocol that permits stations to be removed from and added to said network dynamically (Hild, Col. 5, lines 40-43).

17. As per claim 14, Hild – Segarra disclose the invention substantially as rejected in claim 1 above,

including a method of distributing tasks in a network comprising a plurality of stations, all interconnected by respective network connections to a communication link, said method comprising:

transmitting a service request by a first station to its network connection and onto said network, said service request being directed to a trusted sub-group of said stations and specifying a task to be performed (Hild, Col. 8, lines 33-39; Fig. 2B, item 31, 32);

receiving said service request by a second station, that is one of said trusted sub-group of stations (Segarra, Col. 28, lines 24-52), through its network connection and, in response thereto, transmitting to said network through its network connection an acceptance or refusal message in respect of said service request (Segarra, Col. 28, lines 24-52), said acceptance or refusal being decided having regard to said current status of said second station, as determined by a self assessment of said second station (Segarra, Col. 28, lines 24-52); and

carrying out said task specified in said service request by said second station and returning a service result to said first station (Segarra, Col. 29, lines 1-15).

The remainder of claim 14 is rejected for the same reasons as rejection to claim 1 above.

18. As per claim 15, Hild – Segarra disclose the invention substantially as rejected in claim 14 above, including said carrying out of said service request by said second station involves further distribution of said service by transmitting further service requests to a sub-group of said stations trusted by said second station (Hild, Col. 15, lines 10-15, the initial communication between watch and a computer, the watch and computer both being members of subgroup of trusted stations, afterwards, the user travels to the car, the tasks and information from the watch is now being send towards different car peripherals, which are also members of the subgroup of trusted stations).

19. As per claim 16, Hild – Segarra disclose the invention substantially as rejected in claim 14 above, including computer software comprising program code means for carrying out a method according to claim 14 (Hild, Col. 10, lines 33-45).

20. As per claim 17, Hild – Segarra disclose the invention substantially as rejected in claim 16 above, including a carrier medium carrying computer software according to claim 16, wherein the carrier medium comprises a storage medium (Col. 10, lines 33-45).

21. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hild – Segarra, in view of what was well known in the art

22. As per claim 8, Hild – Segarra disclose the invention substantially as rejected in claim 1 above, including a service/performance history learning analysis module operable to apply artificial intelligence to find task bottlenecks in said station and said other stations, and to bring these to the attention of a network administrator if it can not solve them itself (Sagarra, Col. 29, lines 1-15).

Neither references teach bring to the attention of a network administrator if it can not solve them itself.

However, Official Notice is taken (see MPEP 2144.03) notifying personnel is well known and routinely used for problem solving purposes at the time of the invention was made. It would have been obvious to one of ordinary skill in the art to include notification of personnel with Hild – Segarra because it would provide for efficient problem solving, by notified an appropriate personnel upon a detection of an error that's not capable of self resolution in order to allow for manual solution to the bottleneck problem.

Response to Arguments

23. Applicant's remarks filed 6/20/2005 have been considered but are found not persuasive in view of the new grounds of rejection necessitated by Applicant's amendment.

24. In the remarks, Applicant argued in substance Hild does not teach or suggest as self assessment module operable to determine a current status of the station, wherein the current status is measure of

available hardware resources of the station, and wherein the current status includes a determination of a dynamic status for the station based on current usage of the hardware resources of the station.

In response to applicant's remarks, the dynamic measure/monitoring of the hardware resources comprises at least two scenarios. One is the continual measurement of the available hardware resources in term of power consumption, whether or not the network system is running on batteries and execution of certain system events depends upon the amount of batteries available (Hild, Col. 9, lines 13-20). The other is dynamic status monitoring of actual system components and representation of hardware components with parameters/identifiers (Hild, Col. 7, lines 50-67). Thus, Hild teaches monitoring of dynamic status of hardware components.

25. **THIS ACTION IS MADE FINAL**. Applicant is reined of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

26. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents and publications are cited to further show the state of the art with respect to "Distributed Service Provider".

i. US 5,034,882 Eisenhard et al.

ii.	US 4,969,146	Twitty et al.
iii.	US 5,603,054	Theimer et al.
iv.	US 5,555,376	Theimer et al.
v.	US 6,085,216	Huberman et al.
vi.	US 5,978,940	Newman et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chad Zhong whose telephone number is (571)272-3946. The examiner can normally be reached on M-F 7:15 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JAROENCHONWANIT, BUNJOB can be reached on (571)272-3913. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CZ
February 21, 2006

BUNJOB JAROENCHONWANIT
SUPERVISORY PATENT EXAMINER